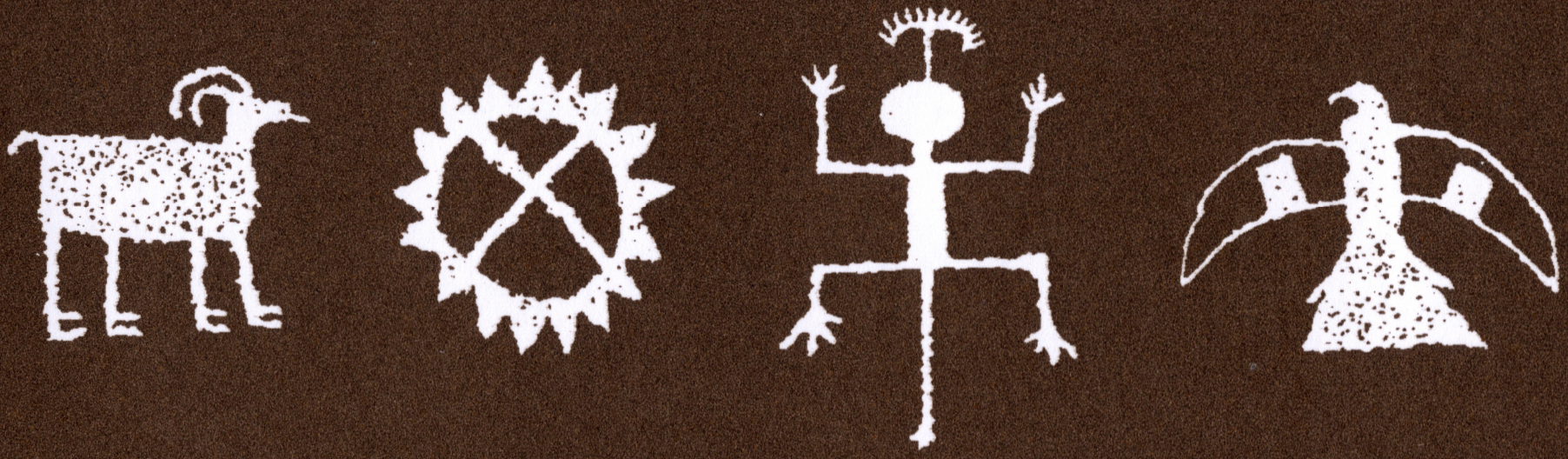
EASY FIELD GUIDE® TO SOUTHWESTERN PETROGLYPHS



EASY FIELD GUIDE® TO SOUTHWESTERN PETROGLYPHS

by Elizabeth C. Welsh

in cooperation with:

Deer Valley Rock Art Center, Phoenix, Arizona

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Introduction

Petroglyphs are pecked or abraded marks that people have purposely made on rocks in the landscape—on boulders, cliff sides, and other stone outcrops.

"Petroglyph" comes from two Greek words:

petro means rock
glyph means carving or engraving

Other terms for petroglyphs are **rock writing** and **rock art**, but Native American petroglyphs cannot be "read" like words, and they probably weren't made just for their visual beauty.

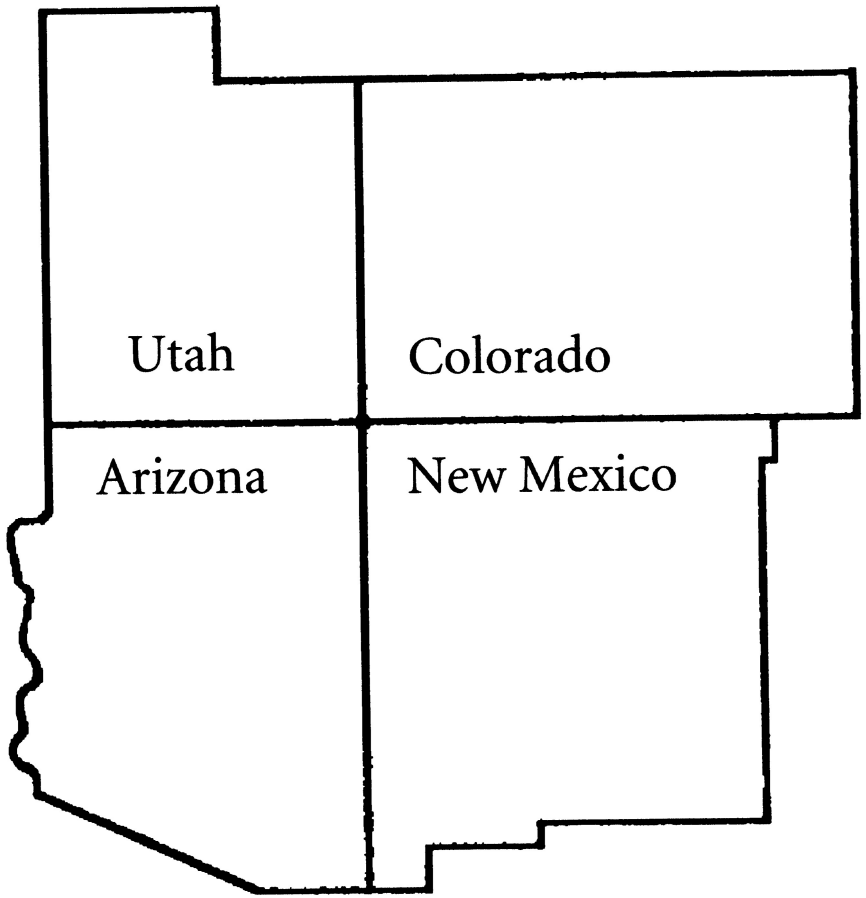
In the Southwest, Native Americans from many different cultures have made petroglyphs. Their rock art can be seen in the deserts, plateau country, and mountains. And petroglyphs have been made for thousands of years, right up to the present.

For petroglyphs to last into the future, a respect for their importance and a commitment to their preservation is essential.

Abbreviations Used In this Book:

UT Utah
CO Colorado
AZ Arizona
NM New Mexico

N North
S South
E East
W West
C Central



AZ-S

The Southwest

Questions

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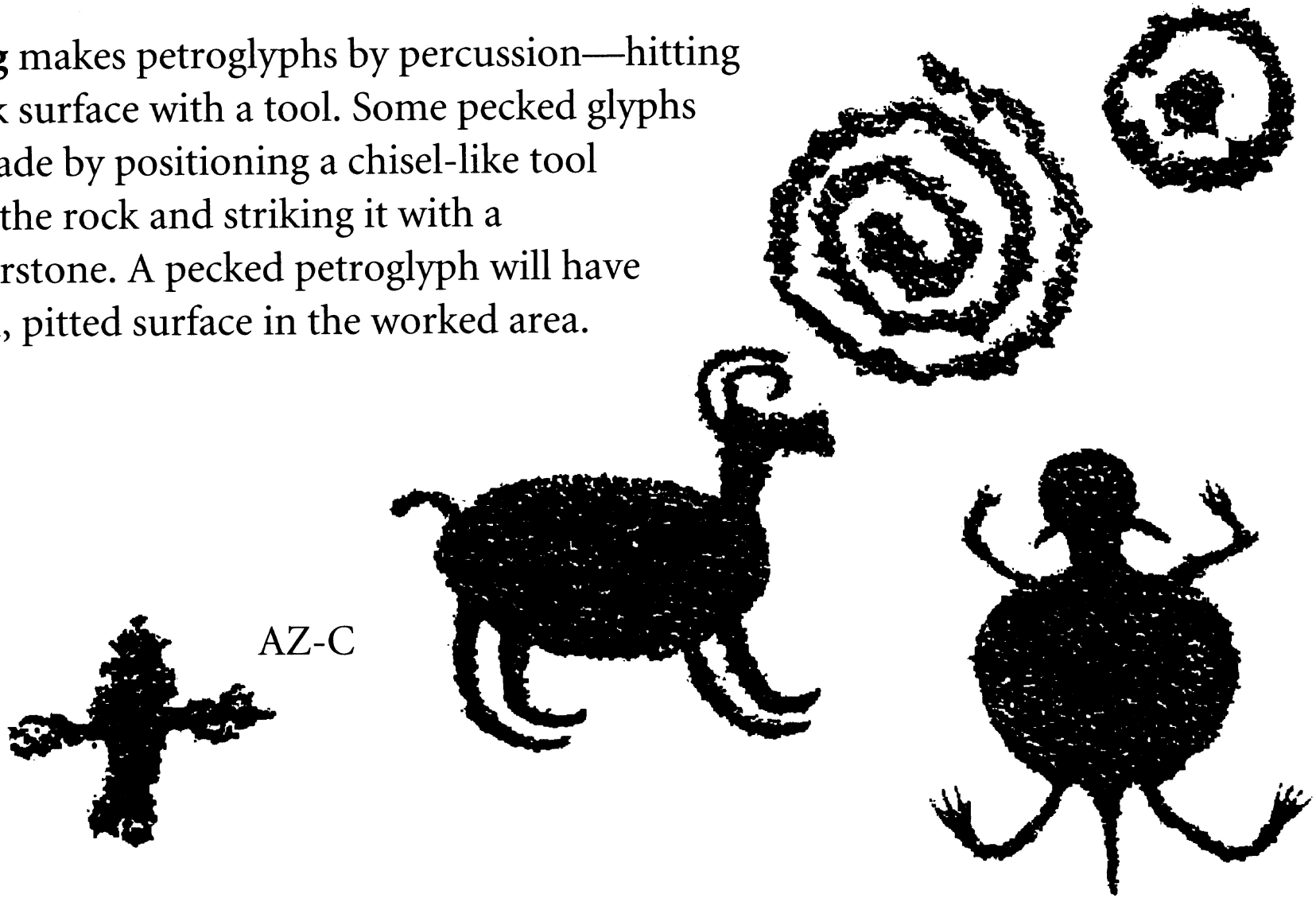
How Are Petroglyphs Made?

Petroglyphs are made by removing some of a rock's surface.

Pecking makes petroglyphs by percussion—hitting the rock surface with a tool. Some pecked glyphs were made by positioning a chisel-like tool against the rock and striking it with a hammerstone. A pecked petroglyph will have a rough, pitted surface in the worked area.



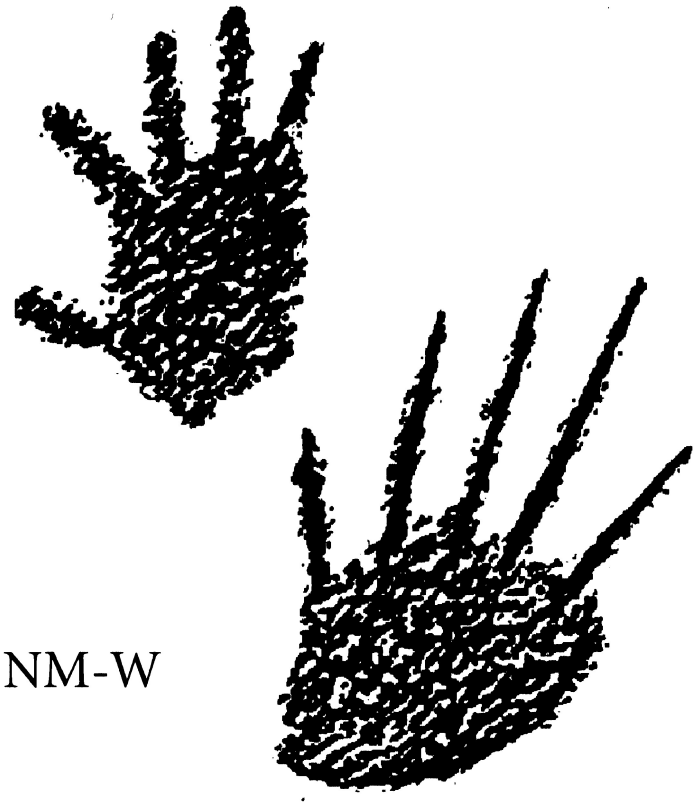
AZ-C

How Are Petroglyphs Made?

NM-W

Abrading makes petroglyphs by grinding. Lines may be lightly scratched or deeply incised. If a whole area was ground, the rock surface will be smooth or even slick.

A combination of pecking and grinding was sometimes used. Some petroglyphs were first pecked, then ground. Others have incised lines on top of a pecked area.



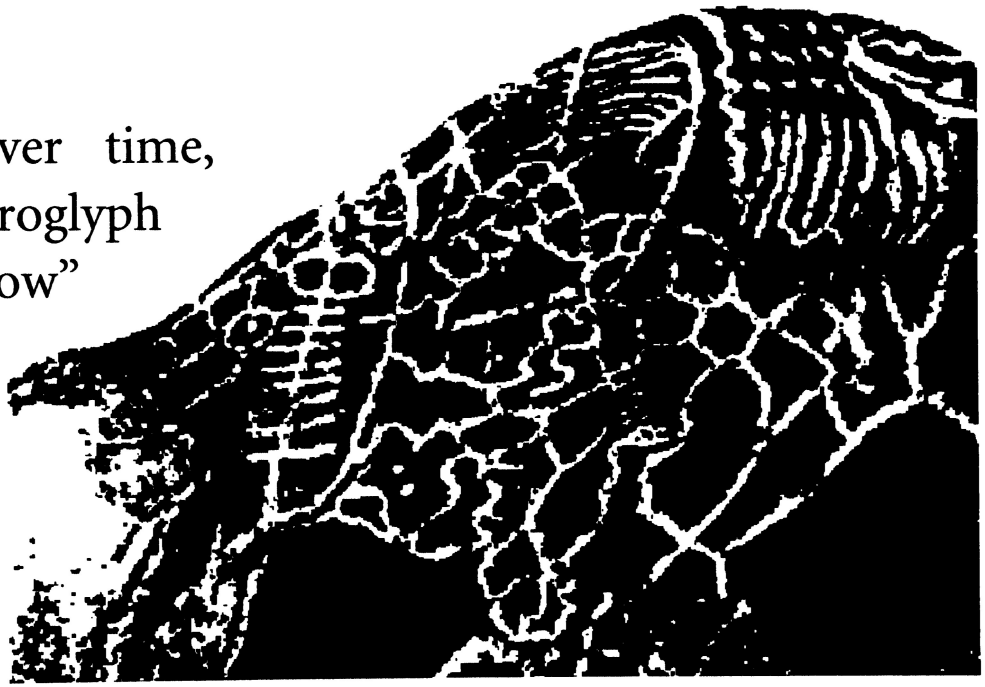
NM-W

What Is Rock Varnish?

Petroglyphs often are very visible, their color contrasting sharply with the surrounding rock. This is because making the petroglyph removes the dark "varnish" and exposes the lighter-colored interior of the rock.

"Rock varnish" or **"desert varnish"** is a layer of minerals that becomes attached to a rock's surface. It forms in dry climates when airborne specks of certain minerals (including clay, manganese oxides, and iron oxides) settle on the rock surface. Colonies of microscopic bacteria on the rock secrete a cement-like substance that causes these minerals to stick.

Rock varnish accumulates gradually over time, becoming thicker and darker. After a petroglyph is made, new rock varnish begins to "grow" on the fresh surface. Some very old petroglyphs have become as dark as the surrounding rock.



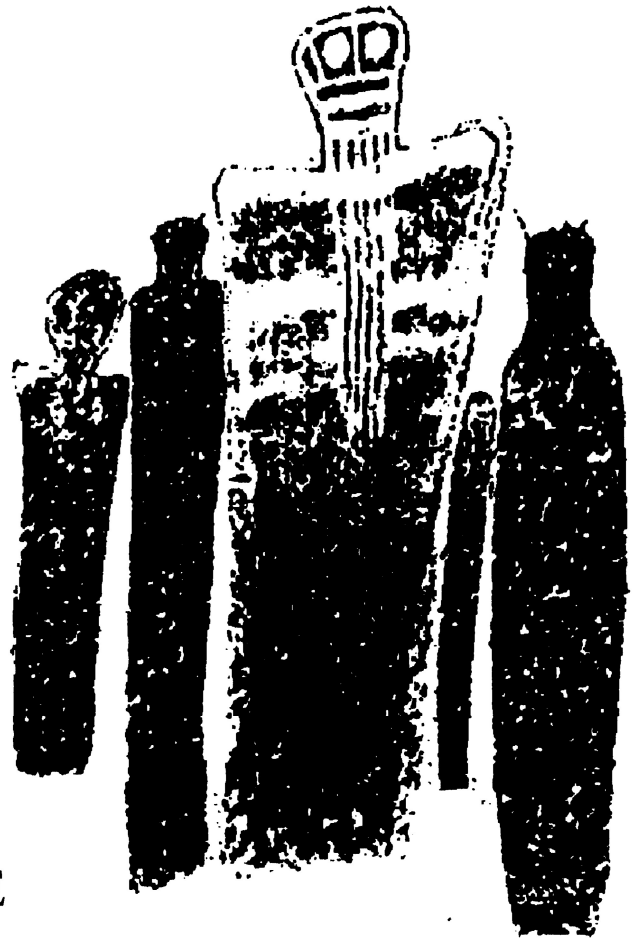
Pictographs

Instead of contrasting with a rock's "varnish," some rock art was colored. Powdered minerals, charcoal, plant substances, or blood were used—usually without any pecking or abrading to make the designs. Such rock art pictures are called **pictographs.**

Almost all pictographs that can be seen today are in places protected from weather.

Other pictographs may have once existed in exposed areas but have eroded away.

Originally, some petroglyphs may have been painted.



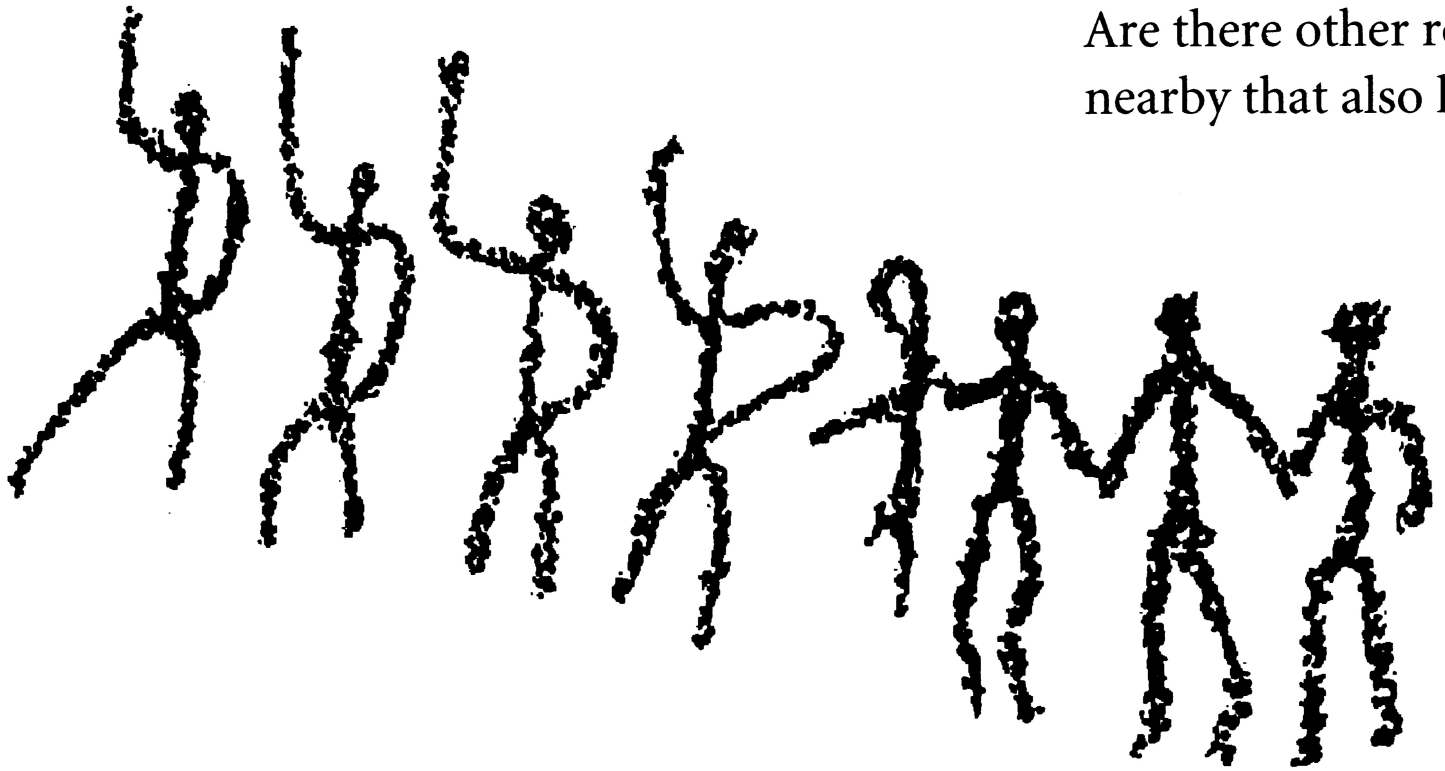
UT-SE

What Places Have Petroglyphs?

Observations to make in the field:

Are there other petroglyphs
on the same rock?

Are there other rocks
nearby that also have glyphs?



AZ-C

Are there rows of
similar petroglyphs?

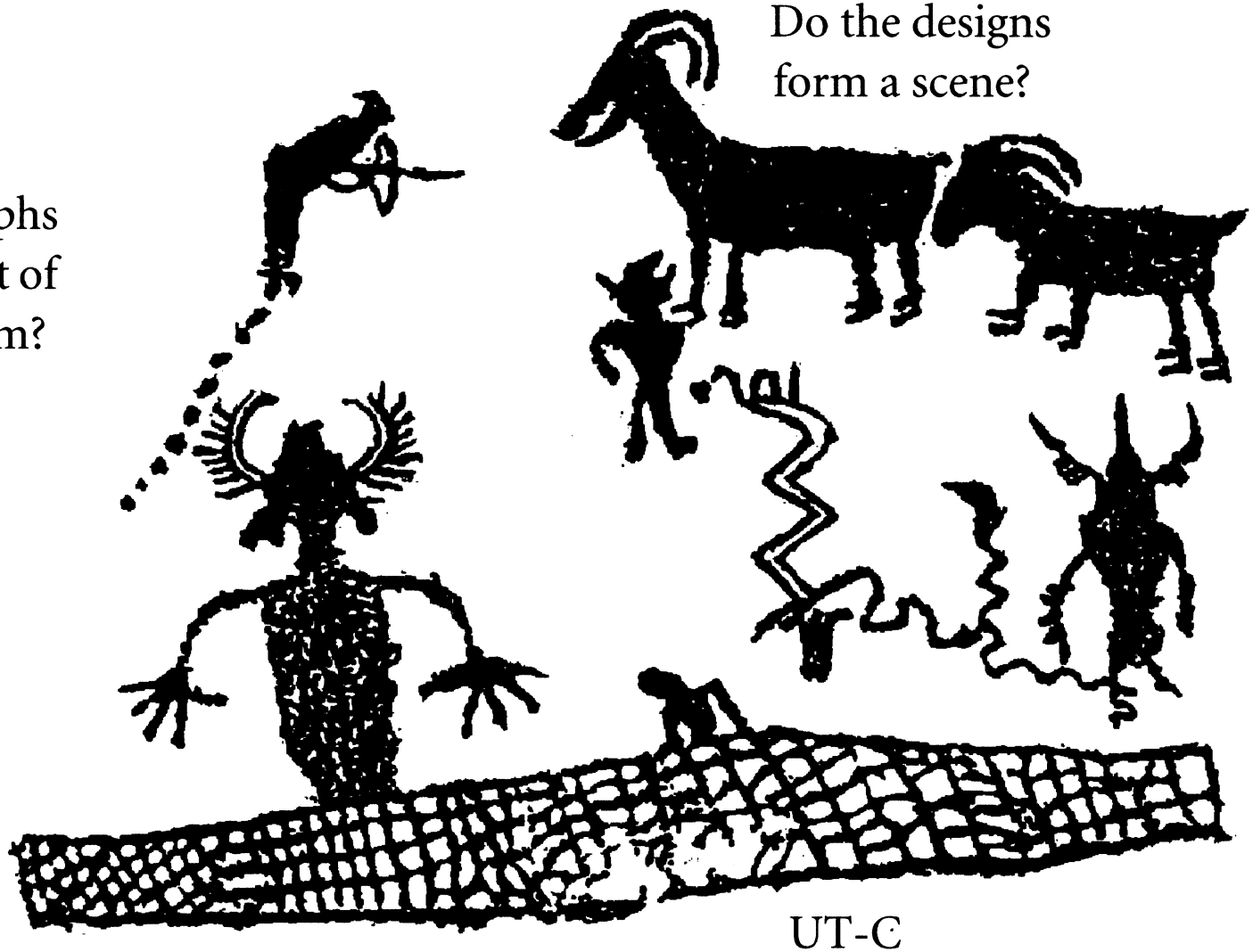
Do any designs overlap?

What Places Have Petroglyphs?

Observations to make in the field:

Do all the petroglyphs have the same amount of rock varnish over them?

Do the designs form a scene?



UT-C

What Places Have Petroglyphs?

Observations to make in the field:

Are the petroglyphs situated on an overlook that offers a wide view?

Are they in a secluded, concealed setting—or are they readily visible?

Are the petroglyphs near water?

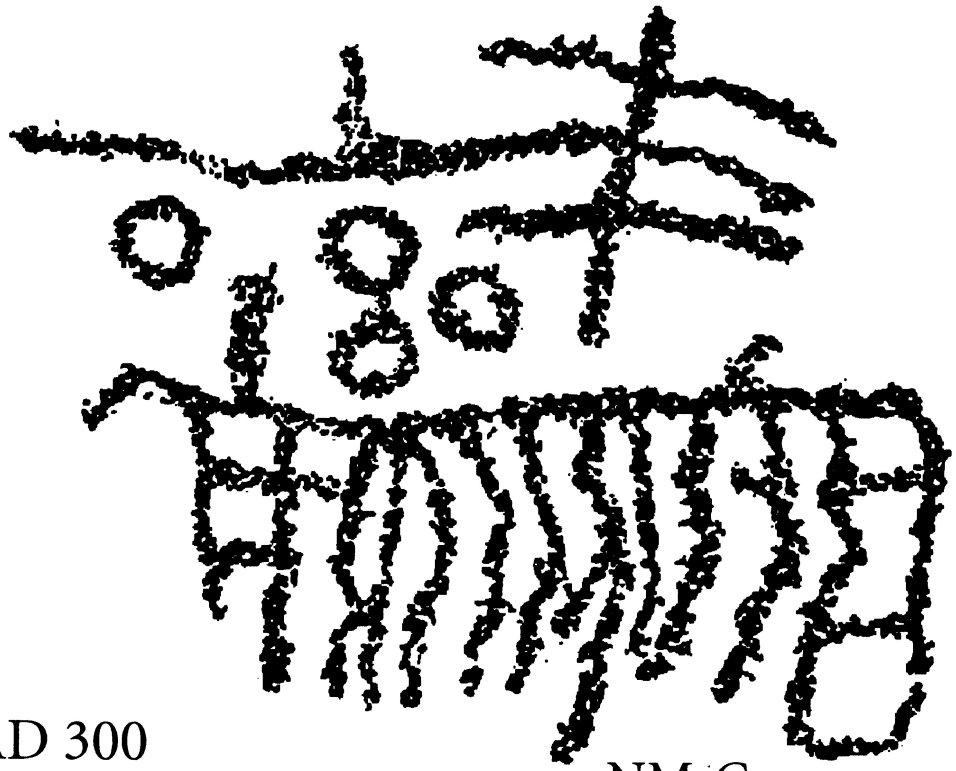
Do they line a path or trail?

Does the petroglyph site offer a good view of the horizon?

Are the petroglyphs near where people lived?

Petroglyph Styles

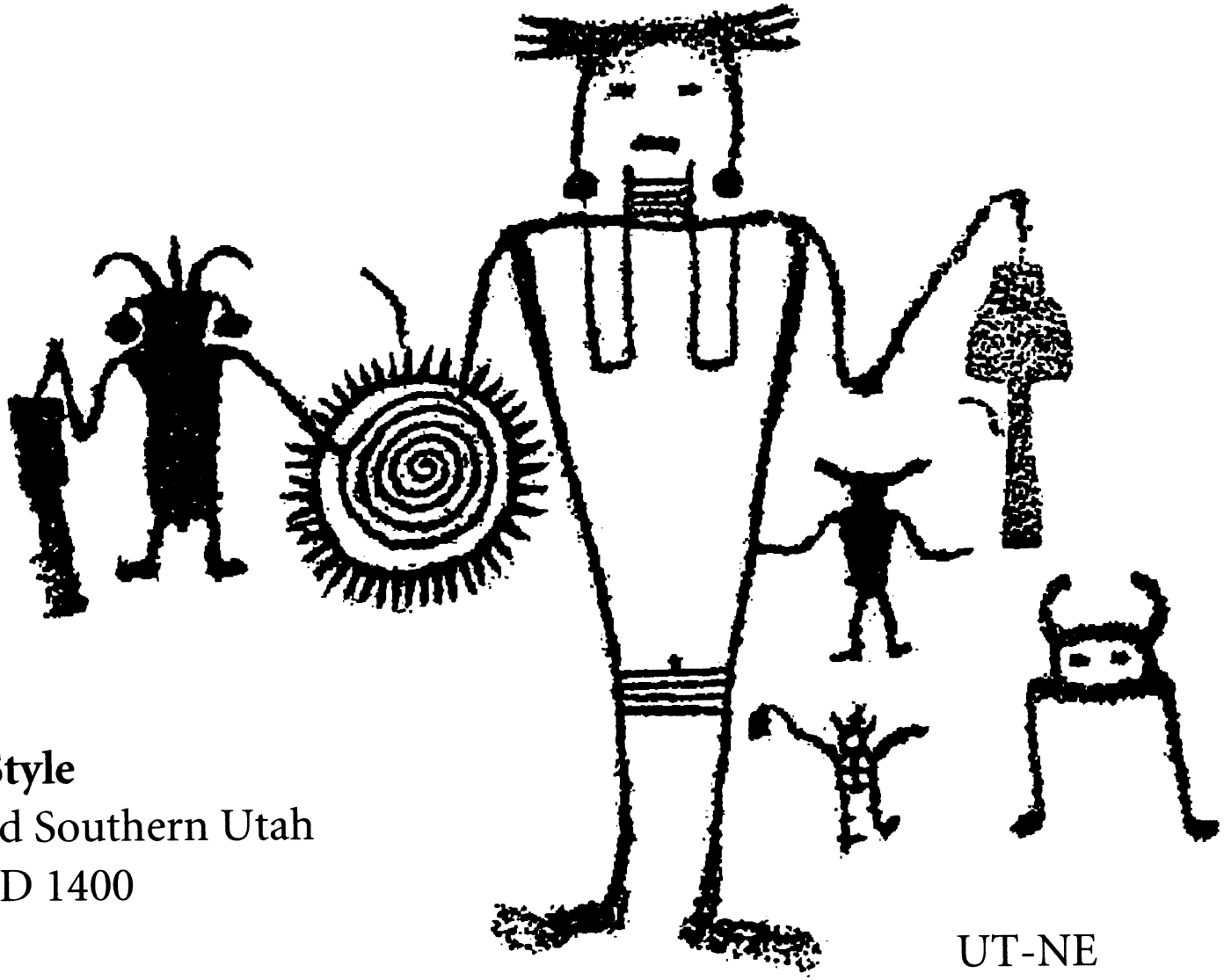
In the Southwest, petroglyphs sometimes are similar all across a region. Researchers have given "style" names to groups of petroglyphs that resemble one another. Each style seems to be characteristic of a geographic area and a time period—and sometimes of a particular Native American tribe or culture group. A few of the most widespread styles are shown below.



Archaic Style
All Southwest
Approximately 5000 BC–AD 300

NM-C

Petroglyph Styles



Fremont Style
Central and Southern Utah
AD 500–AD 1400

UT-NE

Petroglyph Styles

Anasazi Style

Four Corners Region
(where AZ, UT, CO, and NM meet)
AD 300–AD 1300

NM-NW

CO-SW

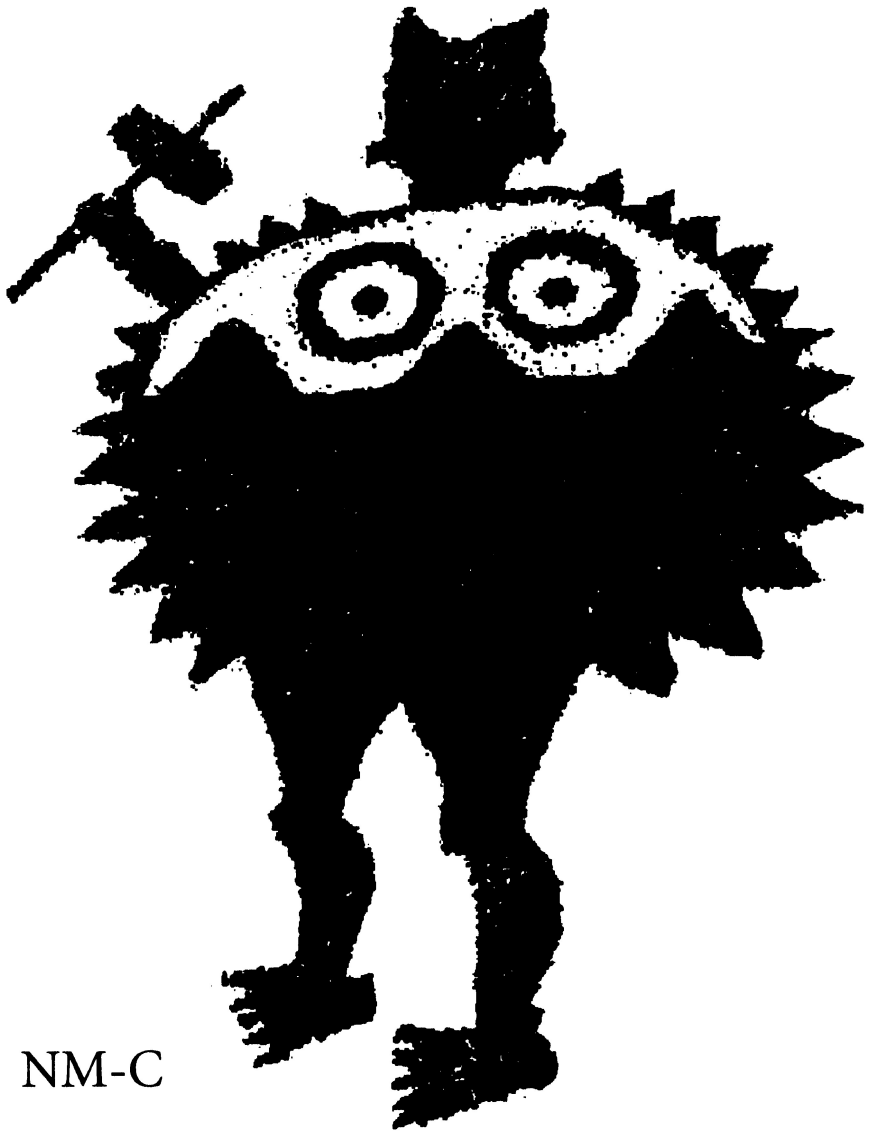
Petroglyph Styles

Hohokam Style
Central and Southern Arizona
AD 300–AD 1400

AZ-C

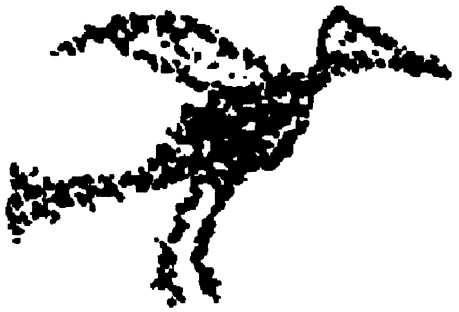
AZ-C

Petroglyph Styles



NM-C

NM



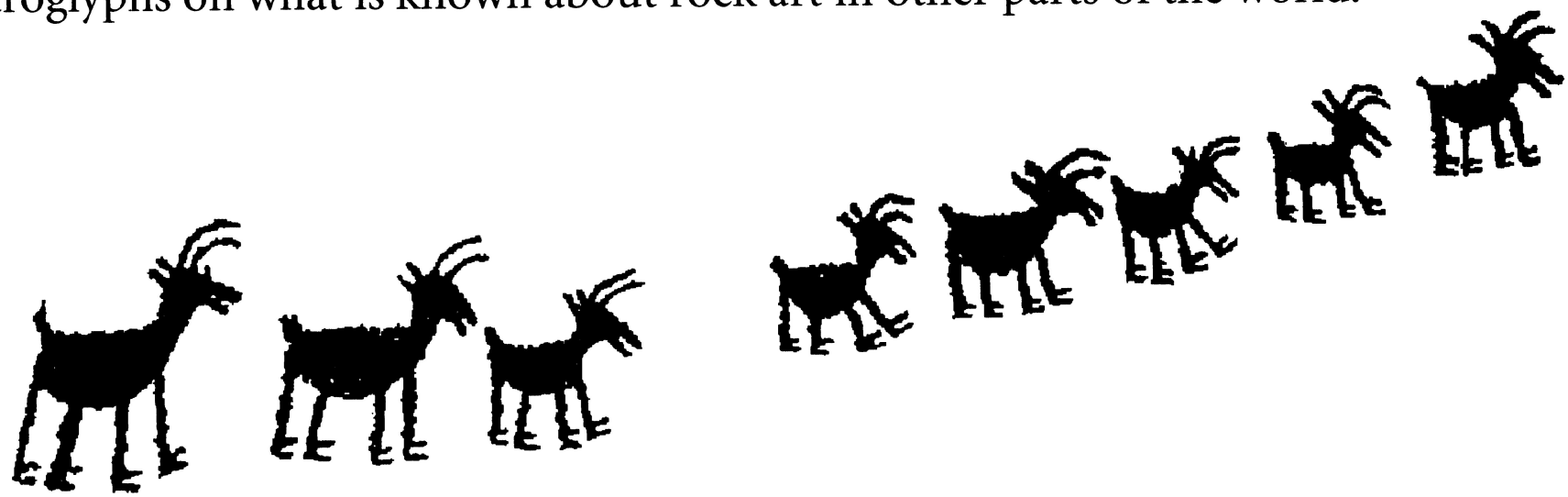
Rio Grande Style
Central and Northern
New Mexico
AD 1300–present

NM

Why Were Petroglyphs Made?

Because petroglyphs have been made across an enormous and highly varied region—and over such a long time period—it is reasonable to assume that they were created for many different reasons.

Native Americans sometimes recognize the purposes and meanings of petroglyphs, especially for designs that are part of their tribal heritage. **Anthropologists and historians** can offer explanations from the study of both ancient and recent Southwestern peoples. **Rock art researchers** base their insight about Southwestern petroglyphs on what is known about rock art in other parts of the world.



AZ-E

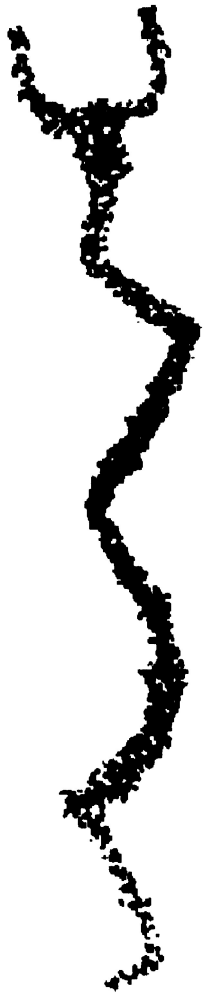
Why Were Petroglyphs Made?

Although petroglyphs were made for various reasons in different times and places, some things are clear:

Native American petroglyphs are not graffiti.
Graffiti consists of marks made where they do not rightfully belong. In only a few rare cases were petroglyphs crossed out in ancient times, perhaps because of changes in territories or religions.

Native American petroglyphs are not hieroglyphics.
Each picture in ancient Egyptian and Mayan hieroglyphics stands for a word or sound in a language. Petroglyphs of the Southwest do not seem to be readable in that way.

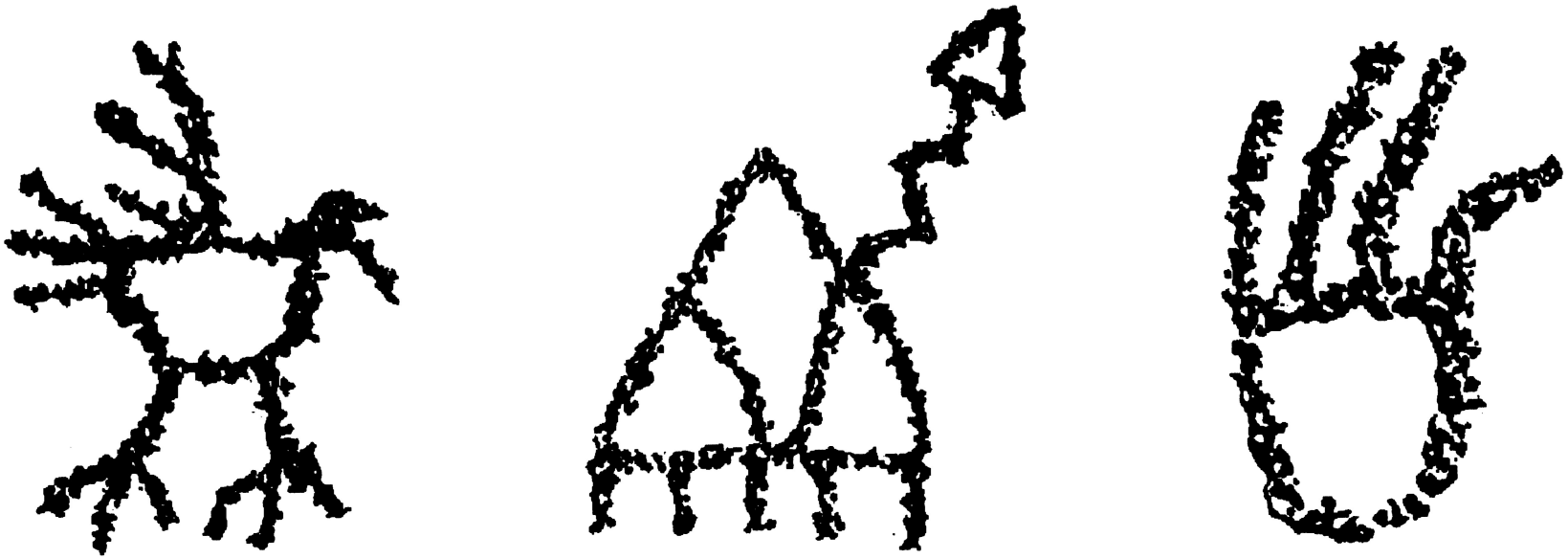
Native American petroglyphs are not doodles.
Petroglyphs were usually made in specific places, and the glyphs included many designs that are known to be culturally significant.



NM-C

Why Were Petroglyphs Made?

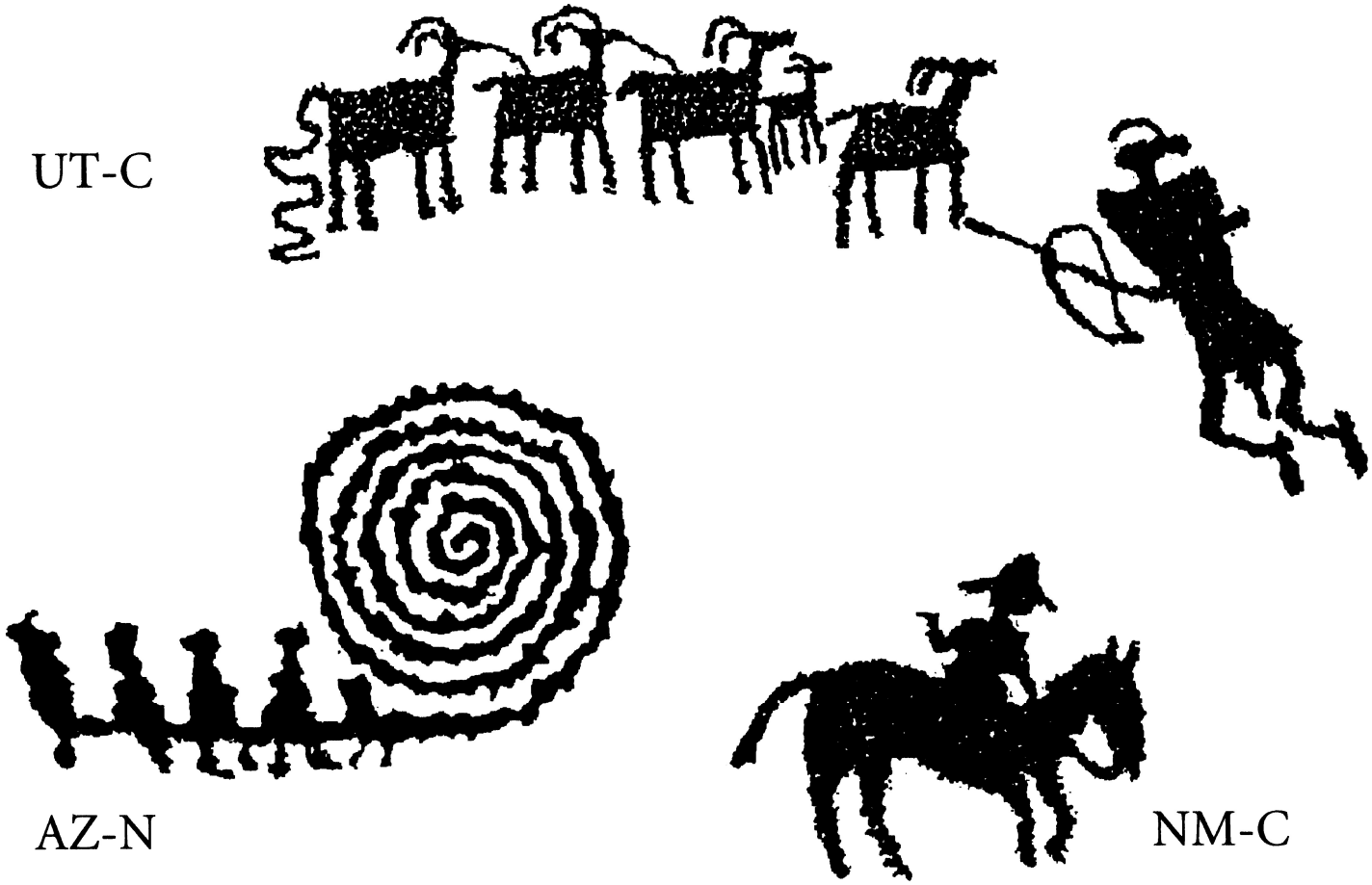
Marking the landscape. Some petroglyphs appear to show a trail, indicate the presence of water, identify territorial claims, or mark some other natural or cultural feature. It is difficult to know for certain whether some of these petroglyphs were made to mark the feature, or whether other activities were conducted in these important places—activities that included petroglyph-making. The petroglyphs below are signs identifying particular clans.



AZ-N

Why Were Petroglyphs Made?

History. Some petroglyphs record events. The travels or migrations of a clan or tribe are sometimes shown by a spiral. Noteworthy events, such as Europeans on horseback, may be illustrated. A depiction of a memorable hunt may be shown.



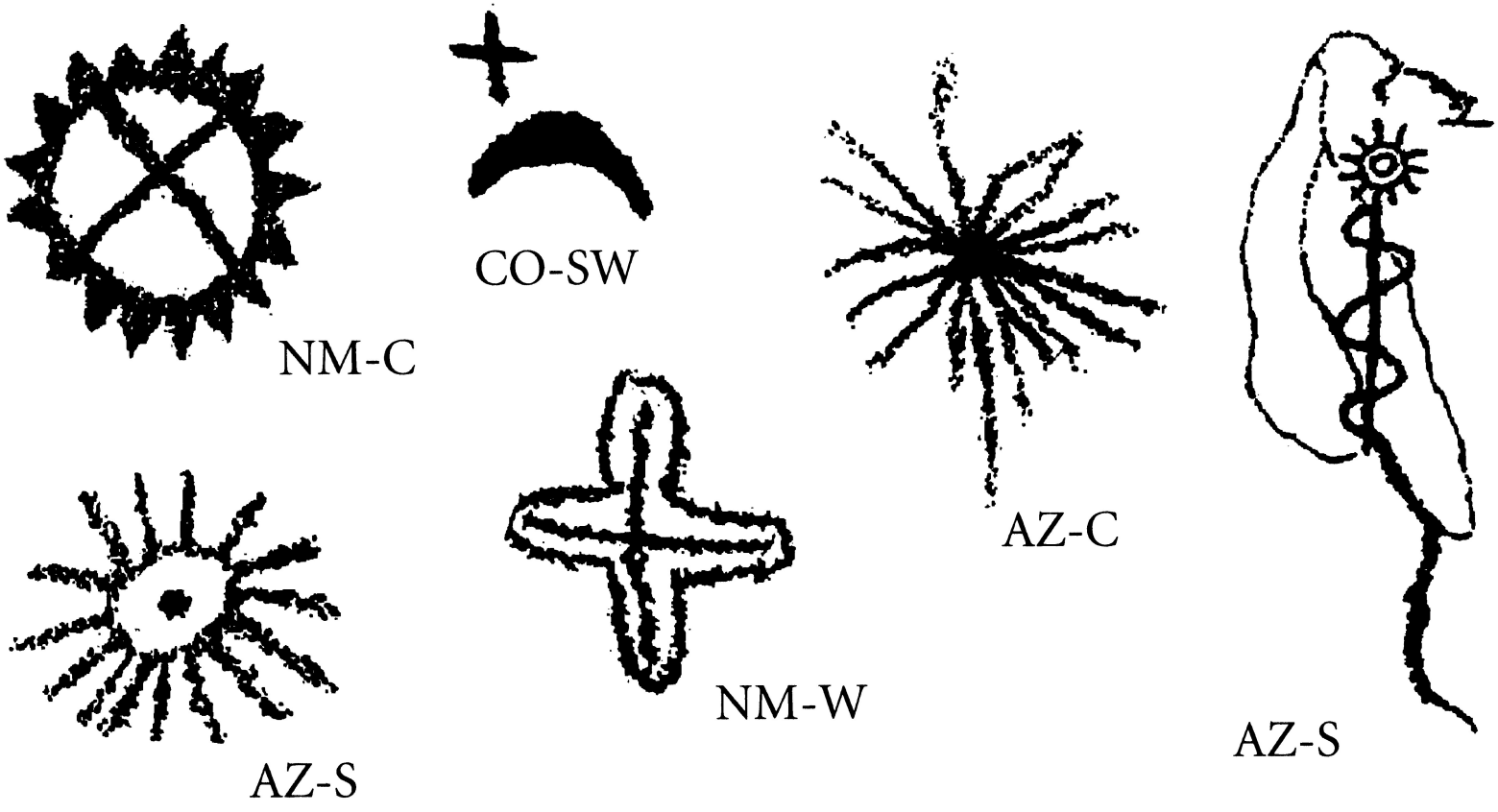
UT-C

AZ-N

NM-C

Why Were Petroglyphs Made?

Skywatching. Familiarity with the movement of the sun, the moon, planets, and stars was far more common in the past than today. Some Native American communities had specialists whose responsibility it was to monitor the sun's position and make other sky observations.

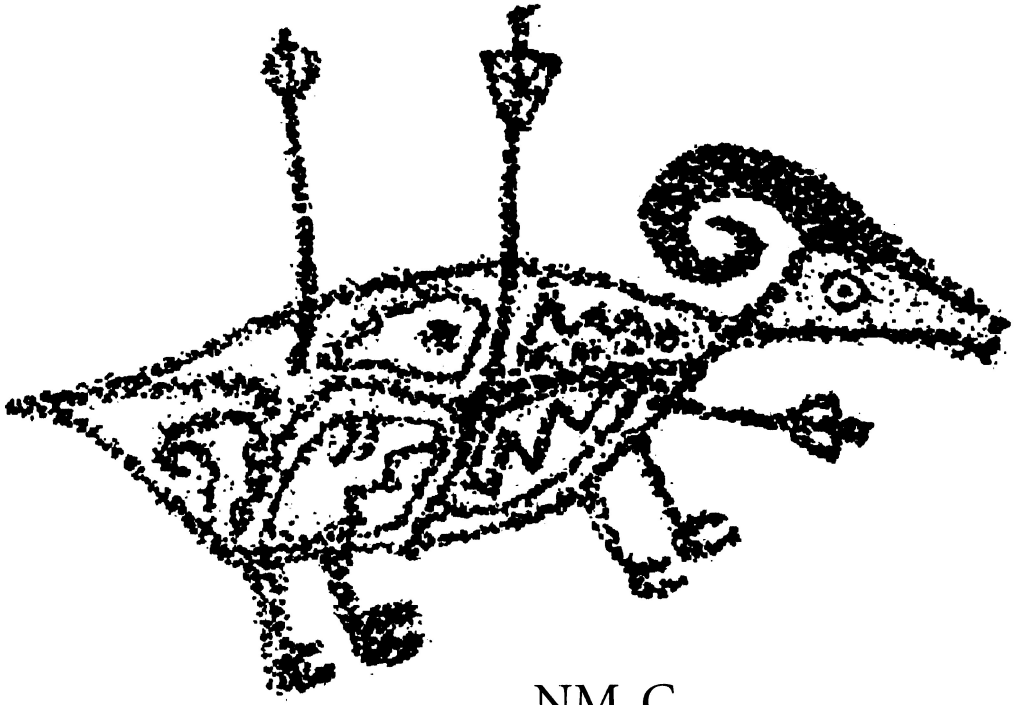


Why Were Petroglyphs Made?

Game hunting. Bighorn sheep, deer, and other large game are depicted very frequently in Southwestern rock art. These petroglyphs may have been related to hunting—perhaps made to encourage the fertility of the animals, to promote or record success in hunting, or to indicate good hunting sites.

AZ-N

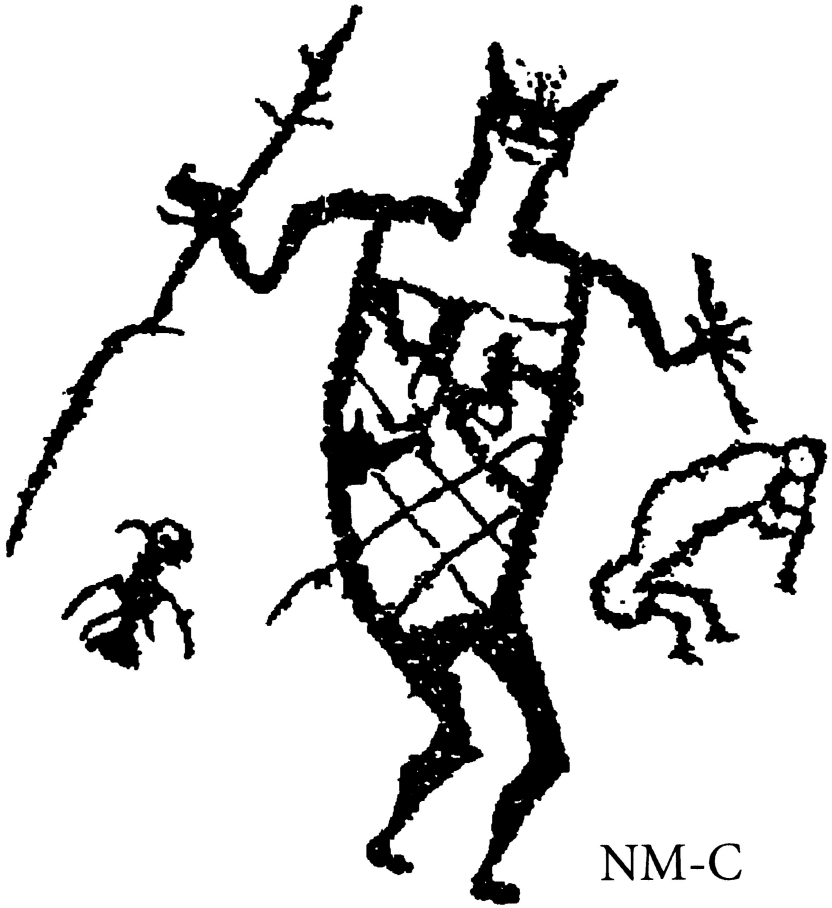
UT-C



NM-C

Why Were Petroglyphs Made?

Spiritual life. Many petroglyphs have been identified by Native Americans and by researchers as related to spiritual life. Religious ceremonies and sacred or holy beings—or their characteristic signs—may be depicted.

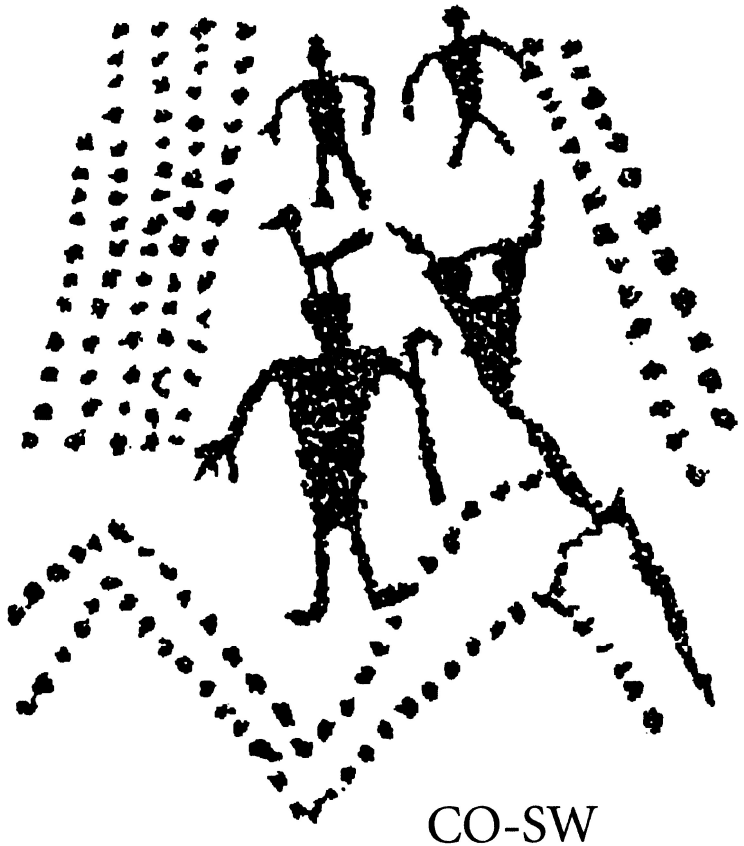


NM-C

NM-C

Why Were Petroglyphs Made?

Seeking visions. Individuals used prayer and vision quests to make contact with spirit beings. Figures shown surrounded by dots may be associated with a vision-seeker's trance state. Shamans' trances are also depicted in petroglyphs, such as in the human-bird petroglyph illustrated below.

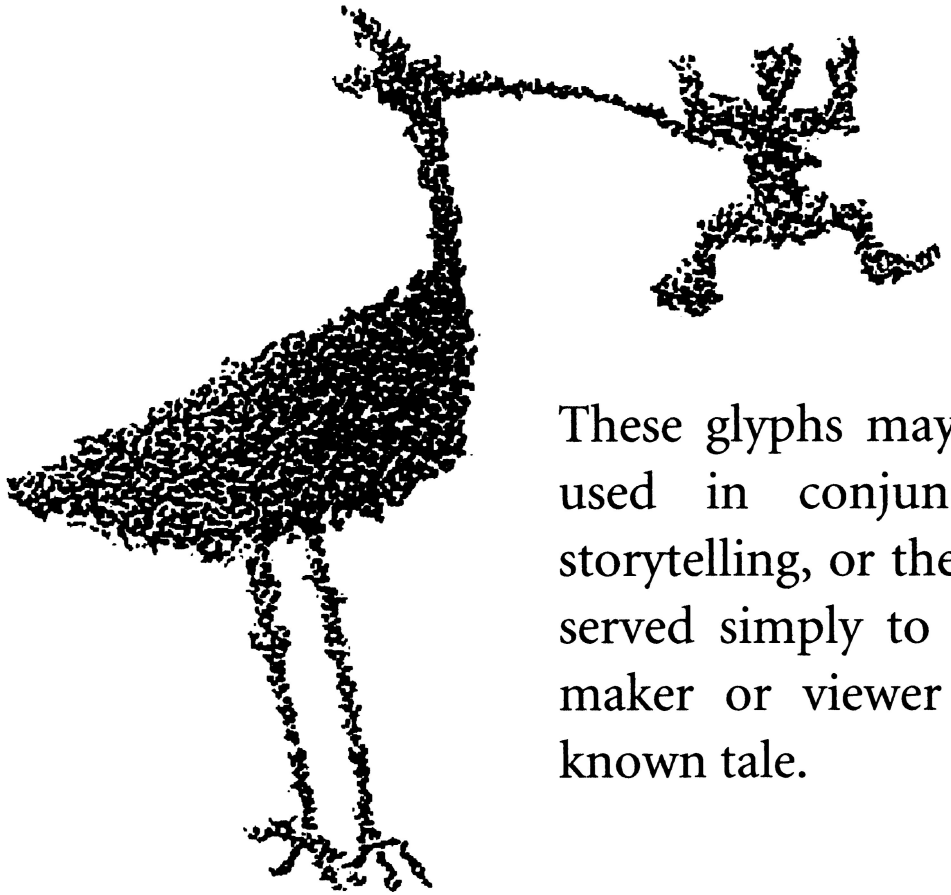


CO-SW

AZ-NE

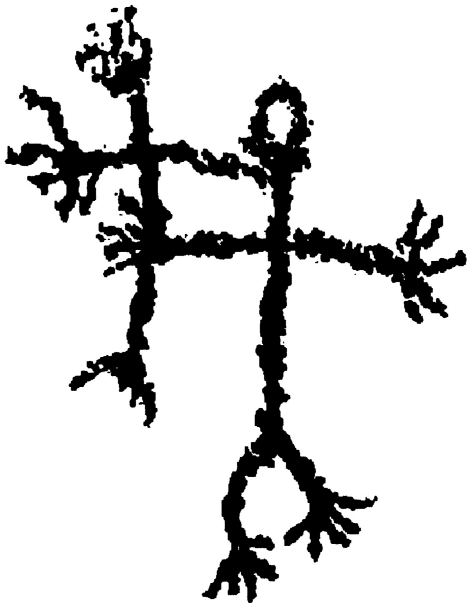
Why Were Petroglyphs Made?

Telling a story. Petroglyphs may illustrate characters or events in legends or other stories.



CO-SW

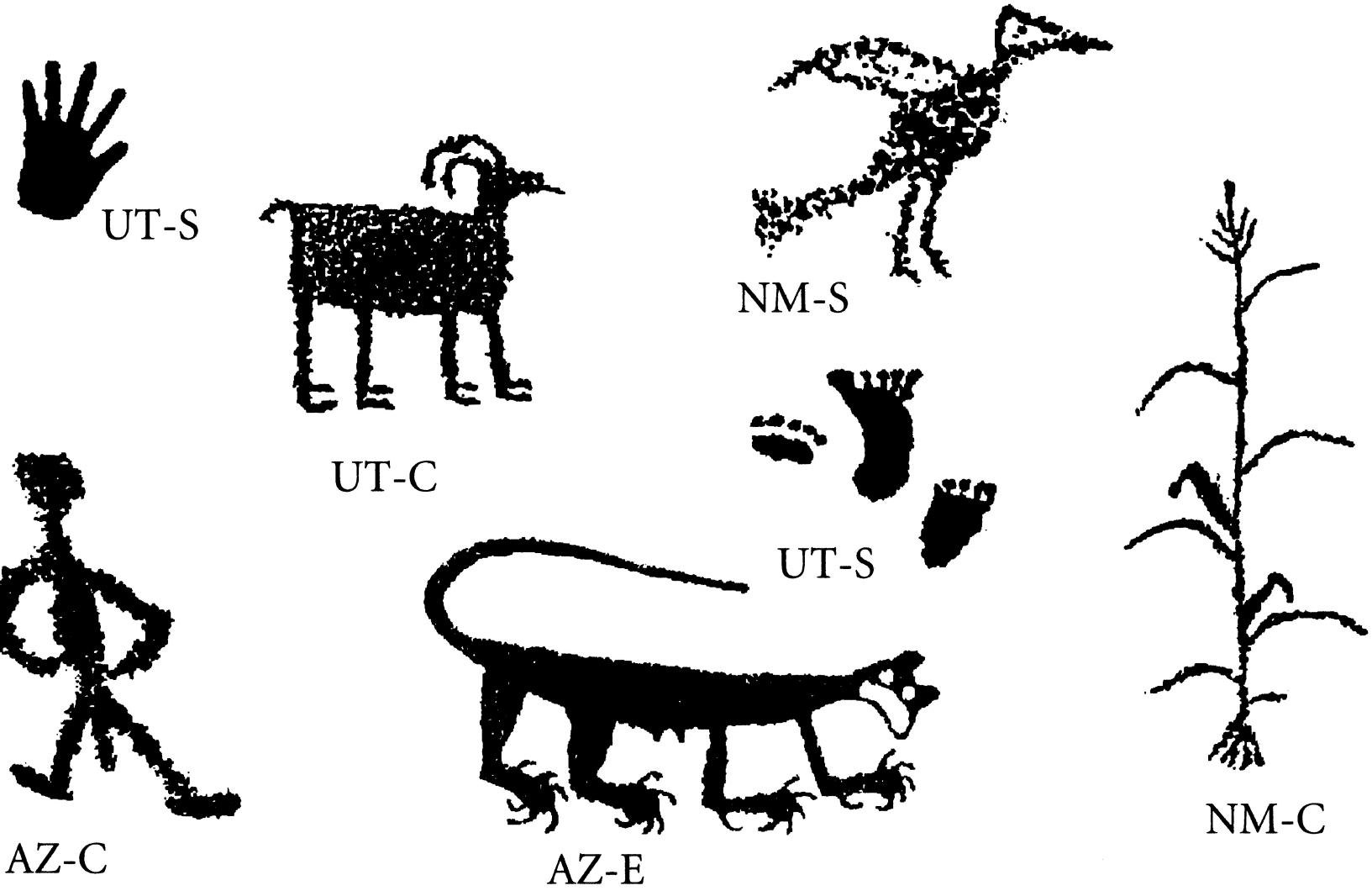
These glyphs may have been used in conjunction with storytelling, or they may have served simply to remind the maker or viewer of a well-known tale.



AZ-C

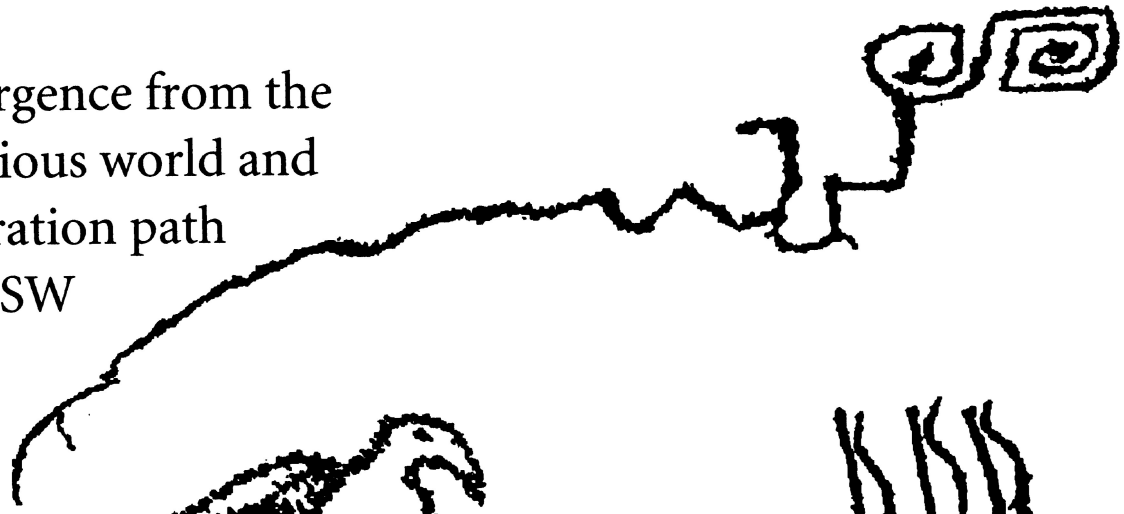
What Do the Petroglyphs Mean?

Many petroglyph designs can be readily identified:



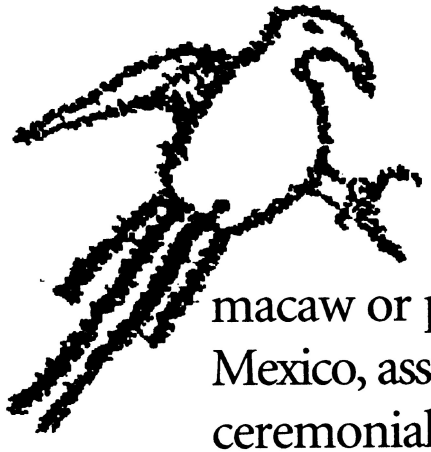
What Do the Petroglyphs Mean?

Some designs require knowledge about Southwestern cultures:

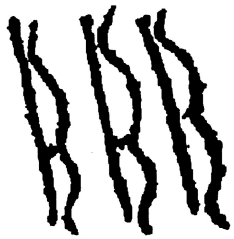


emergence from the previous world and migration path
CO-SW

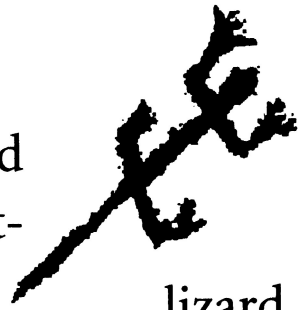
cloud with lightning and rain
AZ-N



macaw or parrot from Mexico, associated with ceremonial life
NM-S



bows for hunting and warfare, or representing Monster Slayer
NM-NW

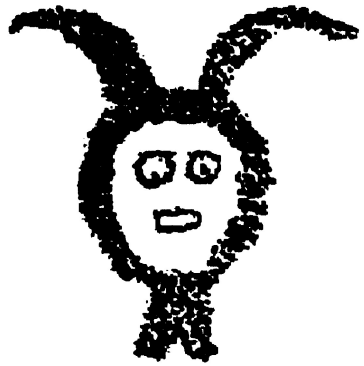


lizard, which can move easily over and between rocks
AZ-C

NM-N horned serpent, associated with water

What Do the Petroglyphs Mean?

Some designs require knowledge about Southwestern cultures:



AZ-N

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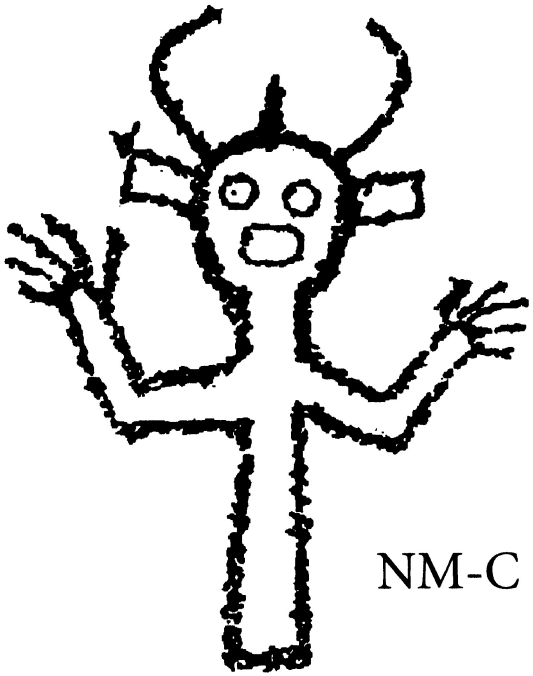

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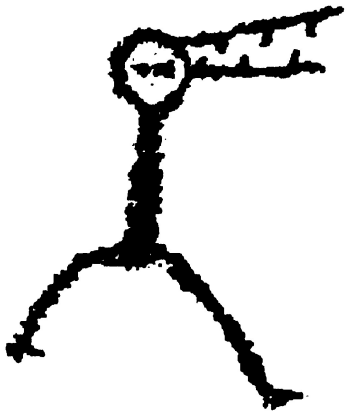


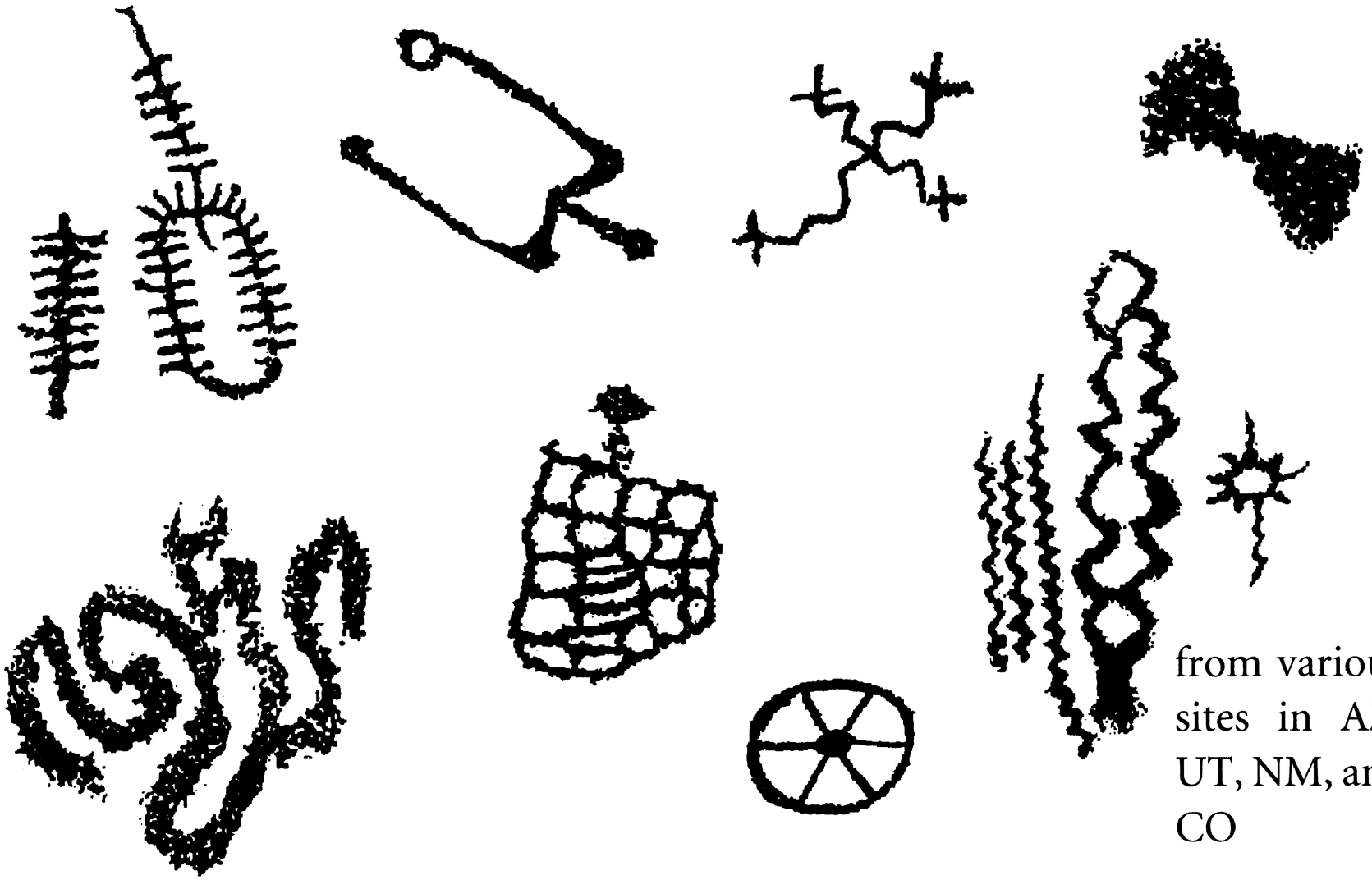
AZ-E

NM-W

ceremonial figures
and spirit beings

What Do the Petroglyphs Mean?

Some petroglyphs are baffling to nearly everyone:



from various sites in AZ, UT, NM, and CO

What Do the Petroglyphs Mean?

But identifying the design—giving it a name—does not tell us what it meant to the petroglyph maker.

For a comparison, imagine that you are living in the distant future.

You could classify this design as a bear wearing a hat—but how would you know that it symbolizes forest fire prevention?

Would the differences in meaning between these similar-looking designs be detectable?

cents

do not enter

none

paragraph

How Can I Take Good Photographs of Petroglyphs?

If you can, go to a site early or late in the day. The diffuse light just before dawn is preferred by many petroglyph photographers.

Eliminating direct sunlight often gives the best results. If the sun is shining on the petroglyphs, get a helper to cast a shadow across the areas you want to photograph.

Never apply water, chalk, or any other substance to outline or highlight the petroglyphs.

Please don't walk or stand on petroglyphs while photographing other rock art at the site.

AZ-E

Why Do Petroglyphs Need Protection?

Petroglyphs seem eternal—many in the Southwest are hundreds or even thousands of years old. But as the population of the region grows, petroglyphs that once were in remote areas are visited by increasing numbers of people. At many sites, the need to protect them is clearly evident.

Petroglyphs need our protection from:

Unthinking visitors. Making rubbings and molds has left damage on many petroglyphs. Even residues from touching can interfere with dating methods now being developed. Rock varnish is relatively soft and thin—when you visit petroglyphs, please don't walk on them!

Vandals and collectors. It is illegal to collect petroglyphs from public land or vandalize petroglyph sites. If you are aware of such activity, inform law enforcement agencies. If local authorities are unable to help, contact nearby state parks or national parks for advice on how to proceed.

Where Can I Visit Southwestern Petroglyphs?

These public places have large petroglyph sites:

Painted Rocks Petroglyph Site, near Gila Bend, Arizona
Petrified Forest National Park, near Holbrook, Arizona
Saguaro National Monument, Tucson, Arizona
Deer Valley Rock Art Center, Phoenix, Arizona
Mesa Verde National Park, near Cortez, Colorado
Bandelier National Monument, near Santa Fe, New Mexico
Petroglyph National Monument, Albuquerque, New Mexico
Three Rivers Petroglyph Site, Three Rivers, New Mexico
Chaco Culture National Hist. Park, near Thoreau, New Mexico
Dinosaur National Monument, near Vernal, Utah
Fremont Indian State Park, near Richfield, Utah
Newspaper Rock Site, near Monticello, Utah
Canyonlands National Park, near Moab, Utah
Nine Mile Canyon, near Price, Utah

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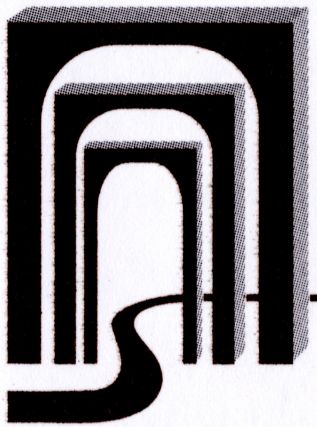

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